IN THE UNITED STATES PATENT AND TRADEMARK OFFICE
BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES

In re Application of: RAJAGOPALAN et al.	§	
	§	Group Art Unit: 2182
Serial No.: 10/731,063	§	
Confirmation No.: 3734	§	
	§	Examiner: Jasjit S. Vidwan
Filed: December 9, 2003	§	
For: UPLOADING TCP FRAME DATA TO USER BUFFERS AND BUFFERS IN SYSTEM MEMORY	§	

MAIL STOP APPEAL BRIEF-PATENTS
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

REPLY BRIEF

Dear Appeal Board:

Applicant submits this Reply Brief to the Board of Patent Appeals and Interferences in response to the Examiner's Answer mailed on September 28, 2009. While Applicants' maintain each of the arguments submitted in Applicants' previously submitted Appeal Brief, Applicants make the following further arguments in light of the Examiner's Answer. Although Applicants believe that no additional fees are due in connection with this reply, the Commissioner is hereby authorized to charge Deposit Account No. 20-0782/NVDA/P000785/SW for any fees necessary to make this reply timely and acceptable to the Office.

REMARKS

Regarding claims 1 and 10:

Claim 1 recites the limitations of a hardware subsystem preconfigured to upload the frame data to a user buffer in the system memory allocated to the application program, if the user buffer is available, and to a legacy buffer in a portion of the system memory that is not allocated to the application program, if the user buffer is not available. Claim 10 recites the limitations of uploading the frame data to a user buffer allocated to the application program, if the user buffer is available, and to a legacy buffer in a portion of the system memory that is not allocated to the application program, if the user buffer is not available. The combination of Boucher and Elzur fails to teach or suggest these limitations.

ARGUMENTS

Obviousness of Claims 1-3, 10, and 29-30 by Boucher and Elzur

The Examiner relies on Elzur for teaching the limitation of storing incoming frame data in a legacy buffer in a portion of memory not allocated to an application program when a user buffer in memory allocated to the application program is not available. The Examiner maintains that the region 308 within memory 304 is a distinct buffer and that one skilled in the art would recognize that region 308 is a separate and distinct memory region from buffer 306. Thus, the Examiner continues to equate element 308 with the claimed legacy buffer and element 306 with the claimed user buffer. However, such an interpretation is inconsistent with the specification of Elzur.

Elzur teaches that element 308 resides in a buffer 304 and that each buffer 304 is associated with a particular application (see column 5, lines 4-9 and column 9, lines 44-45). As clearly shown in Figure 8, buffers 304 labeled as being in the application layer are in memory that is allocated to the application layer and packet buffers 302 labeled as being in the data link layer are in memory that is allocated to the data link layer. The zero copy parser of Elzur bypasses packet buffers 302, which are associated with an intermediate layer (the data link layer), and uploads the frame data directly to buffers 304 in the application layer (see col. 5, lines 22-24 and 31-33). In

sum, elements 304, 306, and 308 are all within a portion of memory that is allocated to the application program and none of these elements is functionally equivalent to the claimed legacy buffer that is within a portion of the system memory that is not allocated to the application program. Thus, the Examiner errs in equating element 308 with the claimed legacy buffer.

Additionally, neither reference provides a teaching or suggestion that frame data is uploaded to a legacy buffer when the user buffer is not available, as expressly recited in claims 1 and 10. In particular, Boucher teaches that frame data is queued until a user buffer is available (see column 12, lines 53-57 of Boucher). Elzur fails to contemplate a user buffer not being available and instead assumes that a user buffer is always available. Even when processing out-of-sequence frames, the out-of-sequence frame data is uploaded to a user buffer in memory that is allocated to the application (see block 260 of Figure 11 and column 9, lines 44-47 of Elzur). Using the technique taught by Elzur, the out-of-sequence frame data is stored in sequential order, so transferring the frame data stored in region 308 becomes unnecessary. In fact, it is essential in Elzur that region 308 be reserved within the user buffer in order to avoid the problem identified in this reference of storing packets out of sequence (see Elzur at column 9, lines 35-47).

As the foregoing illustrates, the combination of Boucher and Elzur fails to teach or suggest the limitation of uploading the frame data to a legacy buffer in a portion of the system memory that is not allocated to the application program, if the user buffer is not available, as explicitly recited in claims 1 and 10. Therefore, no combination of the Boucher and Elzur can render either claim 1 or claim 10 obvious. For these reasons, Applicant submits that claims 1 and 10 are in condition for allowance and respectfully request withdrawal of the 35 U.S.C. § 103(a) rejection of these claims.

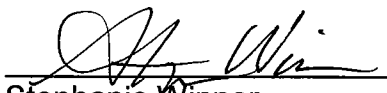
CONCLUSION

As the foregoing illustrates, no combination of Boucher and Elzur can render either claim 1 or claim 10 obvious. For these reasons, Applicant submits that claims 1 and 10 are in condition for allowance and respectfully request withdrawal of the 35 U.S.C. § 103(a) rejection of these claims. Since claims 2-6, 8-9, 21, 22, 28, and 29 depend from allowable claim 1 and claims 24-27 and 30 depend from allowable claim 10, these claims also are in condition for allowance.

The Examiner errs in finding that:

- Claims 1-3, 10, and 29-30 are unpatentable over Boucher and Elzur.

Respectfully submitted,



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